Claims

1. A method for compensating a transverse elongation and/or a longitudinal elongation of a material (03) to be imprinted, wherein the material (03) to be imprinted successively passes through printing groups (04), arranged one behind the other, of a printing press (01), wherein a portion of the transverse elongation is compensated by means of an image regulator (38) after the material (03) to be imprinted has passed through one printing group (04) and prior to its entry into the downstream-located printing group (04), characterized in that a portion of the transverse elongation and/or the longitudinal elongation of the material (03) to be imprinted, which is known at the time of the application of an image to at least one printing forme (08) to be arranged in the downstream-located printing group (04), is compensated by means of a design and/or a positioning of a print image location (09) on the printing forme (08).

2. The method in accordance with claim 1, characterized in that a further portion of the transverse elongation is compensated by a displacement of at least one printing forme (08) on the downstream-located printing group (04) in relation to a reference marker (M) of the material (03) to be imprinted and transversely in respect to the production flow (P) of the material (03) to be imprinted.

3. A method for compensating a transverse elongation and/or a longitudinal elongation of a material (03) to be imprinted, wherein the material (03) to be imprinted successively

passes through printing groups (04), arranged one behind the other, of a printing press (01), wherein a portion of the transverse elongation is compensated by means of a displacement of at least one printing forme (08) on the downstream-located printing group (04) in relation to a reference marker (M) of the material (03) to be imprinted and transversely in respect to the production flow (P) of the material (03) to be imprinted, characterized in that a portion of the transverse elongation and/or the longitudinal elongation of the material (03) to be imprinted, which is known at the time of the application of an image to at least one printing forme (08) to be arranged in the downstream-located printing group (04), is compensated by means of a design and/or a positioning of a print image location (09) on the printing forme (08).

4. The method in accordance with claim 2, characterized in that a further portion of the transverse elongation is compensated by means of an image regulator (38) after the material (03) to be imprinted has passed through one printing group (04) and prior to its entry into the downstream-located printing group (04).

5. A printing press (01) with several printing groups (04), which generate at least one print image (11) on a material (03) to be imprinted, wherein each printing group (04) respectively consists of an ink-transferring cylinder (06) and a forme cylinder (07), wherein the ink-transferring cylinder (06) transfers ink dots for a common print image (11) to the material (03) to be imprinted in a production flow (P) of the material (03) to be imprinted through printing groups (04) arranged downstream of each other wherein, between one ink-transferring cylinder (06)

and an ink-transferring cylinder (06) following in the production flow (P), the material (03) to be imprinted has a transverse elongation with a factor DQ transversely in relation to the production direction (P), wherein the forme cylinder (07) of at least two printing groups (04) has respectively at least one printing forme (08) with at least one print image location (09) correlating with the common print image (11), wherein an image regulator (38), which deforms the material (03) to be imprinted transversely in relation to its production flow (P) prior to its entry into the a downstream located printing group (04), and a control unit which controls at least the image regulator (38), are provided, wherein the control unit controls the image regulator (38) in such a way that the image regulator (38) compensates a portion of the transverse elongation, characterized in that a design and/or a positioning of the print image location (09) of at least one printing forme (08) compensates a portion of the transverse elongation and/or the longitudinal elongation of the material (03) to be imprinted known at the time the printing forme (08) is provided with an image.

6. The printing press (01) in accordance with claim 5, characterized in that the image regulator (38) deforms the material (03) to be imprinted in a wave shape.

7. The printing press (01) in accordance with claim 5, characterized in that the image regulator (38) deforms the material (03) to be imprinted in the course of the ongoing printing process.

8. The printing press (01) in accordance with claim 5, characterized in that the factor DQ of transverse elongation is a function of a mechanical elongation and/or a moisture-related elongation of the material (03) to be imprinted.

9. The printing press (01) in accordance with claim 5, characterized in that the factor DQ of transverse elongation is changeable.

10. The printing press (01) in accordance with claim 5, characterized in that the material (03) to be imprinted is embodied as a web (03) of material.

11. The printing press (01) in accordance with claim 5, characterized in that the forme cylinder (07) has six print image locations (09) in its axial direction (X).

12. The printing press (01) in accordance with claim 5, characterized in that the forme cylinder (07) has two print image locations (09) in its circumferential direction (Y).

13. The printing press (01) in accordance with claim 5, characterized in that each printing forme (08) has only a single print image location (09).

14. The printing press (01) in accordance with claim 5, characterized in that the forme cylinder (07) has six printing formes (08) in its axial direction (X).

15. The printing press (01) in accordance with claim 5, characterized in that the forme cylinder (07) has two printing formes (08) in its circumferential direction (Y).

16. The printing press (01) in accordance with claim 5, characterized in that the ink-transferring cylinder (06) of different printing groups (04) transfers differently arranged ink dots for a common print image (11).

17. The printing press (01) in accordance with claim 5, characterized in that ink dots of cylinders (06) transferring different ink differ in color tone.

18. The printing press (01) in accordance with claim 5, characterized in that at least four printing groups (04) are provided in the production flow (P) of the material (03) to be imprinted, wherein their ink-transferring cylinders (06) for the common print image (11) each transfer color tones which differ from each other.

19. The printing press (01) in accordance with claim 5, characterized in that the ink-transferring cylinder (06) is embodied as a transfer cylinder (06) operating in accordance with the offset printing method.

20. The printing press (01) in accordance with claim 5, characterized in that the printing groups (04) imprint the material (03) to be imprinted in accordance with recto and verso printing.

21. The printing press (01) in accordance with claim 5, characterized in that two ink-transferring cylinders (06) roll off on each other in at least one printing group (04), wherein the material (03) to be imprinted is conducted through the roll-off area of these two ink-transferring cylinders (06).

22. The printing press (01) in accordance with claim 5, characterized in that the printing press (01) is designed as a newspaper printing press (01).

23. The printing press (01) in accordance with claim 5, characterized in that at least one holding device is provided, which is arranged in at least one forme cylinder (07), wherein the holding device holds at least one printing forme (07) arranged on the forme cylinder (07).

24. The printing press (01) in accordance with claim 5, characterized in that at least one register pin arranged in at least one forme cylinder (07) is provided, wherein the register pin aligns at least one printing forme (08) arranged on the forme cylinder (07) in a direction (X) which is axial in respect to the forme cylinder (07).

25. The printing press (01) in accordance with claim 23 or 24, characterized in that the holding device or the register pin displaces at least one printing forme (08) in the axial direction (X) of the forme cylinder (07) as a function of the factor DQ of the transverse elongation.

26. The printing press (01) in accordance with claim 23 or 24, characterized in that at least one controllable actuator is arranged in the forme cylinder (07), wherein the actuator displaces the holding device or the register pin in the axial direction (X) of the forme cylinder (07) as a function of the factor DQ of the transverse elongation.

27. The printing press (01) in accordance with claim 23 or 24, characterized in that at least one holding device or at least one register pin is assigned to the forme cylinder (07) of each printing forme (08).

28. The printing press (01) in accordance with claim 5, characterized in that each printing forme (08) can be individually shifted in the axial direction (X) in respect to the forme cylinder (07).

29. The printing press (01) in accordance with claim 5, characterized in that the forme cylinder (07) can be displaced in its axial direction (X).

30. The printing press (01) in accordance with claim 5, characterized in that the forme cylinder (07) and/or the ink-transferring cylinder (06) of at least one printing group (04) of two printing groups arranged one behind the other is driven by a controllable drive mechanism.

31. The printing press (01) in accordance with claim 5, characterized in that a phase relation assumed between the forme cylinders (07) and/or by the ink-transferring cylinders (06) of at

least two printing groups (04) is controlled as a function of the factor DL of the longitudinal elongation.

32. The printing press (01) in accordance with claim 27 or 31, characterized in that the actuator and/or the phase relation of the forme cylinders (07) and/or of the ink-transferring cylinders (06) can be continuously controlled.

33. The printing press (01) in accordance with claim 27 or 31, characterized in that the actuator and/or the phase relation of the forme cylinders (07) and/or of the ink-transferring cylinders (06) can be controlled while the production of the printing press (01) is running.

34. The printing press (01) in accordance with claim 5, 27, 30 or 31, characterized in that the image regulator (38) actuator and/or the phase relation of the forme cylinders (07) and/or of the ink-transferring cylinders (06) can be controlled from a control console assigned to the printing press (01).

35. The printing press (01) in accordance with claim 5, characterized in that the control unit changes at least one position (X1, Y1) at least one position (X1, Y1) of a center point (S) of at least one print image location (09) of a printing forme (08) is changed by operating the drive mechanism which drives the forme cylinder (07) and/or the ink-transferring cylinder (06).

36. The printing press (01) in accordance with claim 35, characterized in that the control unit changes the position (X1,

Y1) of the center point (S) of at least one print image location (09) in the course of the ongoing printing process.

37. The printing press (01) in accordance with claim 35, characterized in that the control unit changes the position (X1, Y1) of the center point (S) of at least one print image location (09) as a function of the color tone of the ink-transferring cylinder (06) and/or the arrangement of the printing group (04) with the forme cylinder (07) supporting the printing forme (08) in the production flow (P) of the material (03) to be imprinted and/or of the position of the printing forme (08) arranged on the forme cylinder (07).

38. The printing press (01) in accordance with claim 5, characterized in that detection device is provided, wherein the detection device detects at least one center point (SB) of the print image (11) which is to be mutually printed from different print image locations (09).

39. The printing press (01) in accordance with claim 13, characterized in that the control unit changes the center point (SB) of the print image (11) by means of an actuation of the image regulator (38).

40. The printing press (01) in accordance with claim 35 and 39, characterized in that the control unit operates the drive mechanism driving the actuator and/or the forme cylinder (07) and/or the ink-transferring cylinder (06), and/or the image regulator (38) in such a way that the position (X1, Y1) of the center point (S) of the print image locations (09) printing a

common print image (11) matches the center point (SB) of the print image (11).

41. The printing press (01) in accordance with claim 5, characterized in that, transversely to the production flow (P) of the material (03) to be imprinted, the image regulator (38) has at least three air nozzles with an air flow directed onto the material (03) to be imprinted.

42. The printing press (01) in accordance with claim 41, characterized in that the air flow from the air nozzles arranged between two air nozzles is directed opposite the air flow from its adjoining air nozzles.